

CLAIMS

1. A drive circuit IC of an organic EL display panel, which includes a plurality of current sources for outputting drive currents to a plurality of column lines or a plurality of data lines, comprising:

a plurality of switch circuits;

a plurality of resistors;

a selector; and

a switch scan circuit,

wherein said plurality of switch circuits having one ends connected to the output terminals, respectively, and the other ends connected commonly,

said plurality of resistors having one ends connected to a predetermined potential line,

said selector for selectively connecting the other ends of the plurality of the switches to one of the other ends of the plurality of the resistors, and

said switch scan circuit for selectively turning the switch circuits ON sequentially with a predetermined timing,

and wherein the switch circuits and the switch scan circuit are provided in the IC, the output current is converted into a voltage by one of the plurality of the resistors, which is selected by the selector, for the test of the output current of the output terminal and the converted voltage value generated sequentially according to the scanning of the switch scan circuit is outputted from the IC.

2. The drive circuit IC of an organic EL display panel, as claimed in claim 1, wherein the switch scan circuit scans the plurality of the switch circuits according to a clock signal supplied externally of the IC to sequentially turning the

switch circuits ON.

3. The drive circuit IC of an organic EL display panel, as claimed in claim 2, further comprising a frequency divider circuit, wherein the clock signal is frequency-divided by the frequency divider circuit, the switch scan circuit scans the plurality of the switch circuits according to the frequency-divided clock signal and the converted voltage value and the frequency-divided clock signal are outputted from the IC.

4. The drive circuit IC of an organic EL display panel as claimed in claim 3, further comprising a comparator provided within the IC, for comparing the converted voltage value with a predetermined voltage, wherein the selection of the plurality of the resistors by the selector is switched from one resistor to another and a result of the comparison by the comparator and the frequency-divided clock signal are outputted from the IC.

5. The drive circuit IC of an organic EL display panel as claimed in claim 2, further comprising an A/D converter circuit for converting the converted voltage value stored in the IC into a digital value, wherein the selection of the plurality of the resistors by the selector is switched from one resistor to another and the digital value and the clock signal are outputted from the IC.

6. The drive circuit IC of an organic EL display panel as claimed in claim 4 or 5, wherein the selector selects one of the plurality of the resistors according to a selection signal supplied externally of the IC.

7. The drive circuit IC of an organic EL display panel as claimed in any of claims 2 to 6, wherein, in order to determine appropriateness of the current values outputted to the output

terminals, resistance values of the plurality of the resistors have predetermined values, respectively, and the switch scan circuit includes a shift register.

8. The drive circuit IC of an organic EL display panel as claimed in claim 7, wherein the predetermined resistance values of the plurality of the resistors correspond to an upper limit value and a lower limit value of a range in which the current values outputted to the respective output terminals are appropriate, respectively.

9. The drive circuit IC of an organic EL display panel as claimed in claim 6, further comprising a constant voltage generator circuit provided between the selector and the voltage line of the predetermined voltage, wherein the selector selects the constant voltage generator circuit and connects the commonly connected other ends of the switch circuits usually and selects one of the resistors according to the selection signal.

10. The drive circuit IC of an organic EL display panel as claimed in claim 9, wherein the organic EL display panel is a passive matrix type EL display panel and the switch circuits are reset switches for resetting terminal voltages of organic EL elements of the organic EL display panel.

11. The drive circuit IC of an organic EL display panel as claimed in claim 9, wherein the organic EL display panel is an active matrix type EL display panel and the switch circuits are reset switches for resetting terminal voltages of capacitors of pixel circuits of the organic EL display panel.

12. An organic EL display device comprising the drive circuit of the organic EL display panel as claimed in any of claims 1 to 11 and the organic EL display panel.

13. The test device of a drive circuit of an organic EL display panel for testing appropriateness of values of the drive currents of the respective output terminals of the drive circuit of the organic EL display panel as claimed in any of claims 1 to 11 according to the converted voltage value or a signal corresponding thereto outputted from the IC.

14. The test device of a drive circuit of an organic EL display panel as claimed in claim 13, wherein the comparator of the drive circuit of the organic EL display panel as claimed in claim 4 is provided externally of the IC.

15. The test device of a drive circuit of an organic EL display panel as claimed in claim 13, wherein the comparator of the drive circuit of the organic EL display panel as claimed in claim 5 is provided externally of the IC.